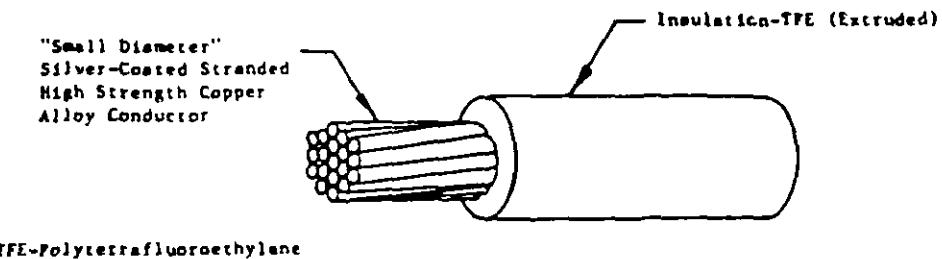


MILITARY SPECIFICATION SHEET

WIRE, ELECTRIC, FLUOROPOLYMER-INSULATED, EXTRUDED TFE,
SILVER-COATED HIGH STRENGTH COPPER ALLOY CONDUCTOR, 600-VOLT

This specification is approved by the Naval Air Systems
Command, Department of the Navy.

The complete requirements for procuring the wire described herein shall
consist of this document and the issue in effect of Specification MIL-W-22759.



TFE-Polytetrafluoroethylene

TABLE I. CONSTRUCTION DETAILS

Part No. 1/	Wire size	Stranding (Number of strands X AWG gage of strands)	Diameter of stranded conductor (inches)		Finished wire		
			(min)	(max)	Resistance at 20°C (68°F) (ohms/1000 ft) (max)	Diameter (inches)	Weight (lbs/1000 ft) (max)
M22759/22-26-*	28	7 X 36	.014	0.015	74.4	.033 ± .002	1.32
M22759/22-26-*	26	19 X 38	.018	0.020	44.8	.038 ± .002	1.91
M22759/22-24-*	24	19 X 36	.023	0.024	28.4	.043 ± .002	2.61
M22759/22-22-*	22	19 X 34	.029	0.031	17.5	.049 ± .002	3.68
M22759/22-20-*	20	19 X 32	.037	0.039	10.7	.058 ± .002	5.38

1/ PART NO.: The asterisks in the part number column, Tables I and II, shall be replaced by color code designators in accordance with MIL-STD-681. Examples: Size 20, white - M22759/22-20-9; white with orange stripe - M22759/22-20-93.

TABLE III. PERFORMANCE DATA

Part No.	Abrasion resistance (Procedure III)				Bend testing			
	Resistance (inches of tape) (min) (initial condition)	Weight support bracket	Weight (lbs)	Tension load (lbs)	Mandrel diameter (inches) (+1%)		Test load (lbs) (+1%)	
					Life cycle (oven & bend tests) ^{1/}	Cold bend test	Life cycle (oven & bend tests) ^{1/}	Cold bend test
M22759/22-28-*	12	A	.50	1.0	.125	.250	.50	.50
M22759/22-26-*	18	A	.50	1.0	.125	.250	.50	.50
M22759/22-24-*	18	A	.50	1.0	.125	.250	.50	.50
M22759/22-22-*	24	A	.50	1.0	.250	.375	.75	.75
M22759/22-20-*	24	A	.50	1.0	.250	.375	.75	.75

^{1/} Also for bend tests after immersion.WIRE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 200°C (392°F) max conductor temperature

VOLTAGE RATING: 600 volts (rms) at sea level

ABRASION RESISTANCE AFTER IMMERSION: No requirement

ACID RESISTANCE: Required

Dielectric test, 2200 volts (rms), 60Hz

BLOCKING: 240 ±2°C (570 ±3.6°F)

COLOR: In accordance with MIL-STD-104, Class I; white preferred

COLOR STRIPPING OR BANDING INHIBITIVITY: 250 cycles (500 strokes) (min), 500 gram weight

DIELECTRIC TEST AFTER IMMERSION: 2200 volts (rms), 60Hz

FLAMMABILITY: Post-flame dielectric test not required

HUMIDITY RESISTANCE: No requirement

ELECTRICAL INSULATION INHIBITIVITY: 125 cycles (250 strokes) (min), 500 gram weight

IMPULSE DIELECTRIC TEST: 8.0 kilovolts (peak), 100% test

INSULATING RESISTANCE: 50,000 megohms for 1000 ft (min)

LIFE CYCLE: Oven temperature 275 ±2°C (527 ±3.6°F)

Dielectric test, 2200 volts (rms), 60Hz

LOW TEMPERATURE (COLD BEND):

Bend temperature: -65 ±2°C (-85 ±3.6°F)

Dielectric test, 2200 volts (rms), 60Hz

SHRINKAGE: 0.01 inch max at 240 ±2°C (574 ±3.6°F)

SMOKE: 290°C (554°F)

SPARK TEST OF PRIMARY INSULATION: Not required

SURFACE RESISTANCE: 500 megohm-inches (min), initial and final readings

THERMAL SHOCK: Oven temperature, 200 ±2°C (392 ±3.6°F)

Max change in measurement, 0.060" inch

WICKING: No requirement

WIRE LENGTH REQUIREMENTS: Schedule A

WRAP TEST: "Wrap back" test required; no cracking

Oven temperature, 110 ±2°C (290.4 ±3.6°F)

Prepared by: _____
 Navy - AS
 (Project No. 6145-N/22)

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